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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/528,552

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Clifford James Connors

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05/19/2004

TERRY J. STALFORD
BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT

PAPER NUMBER

2613

6

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/528,552

Applicant(s)

CONNORS ET AL.

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/11/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4-5</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Morley.

Morley discloses a method for combining multispectral images of a scene, the system comprising: a channel for transmitting a scene in a first spectral band (Morley: column 6, lines 15-20); a detector for sensing the scene in a second spectral band having an image output representative of the scene (Morley: column 10, lines 1-10); a display for receiving the image output and displaying a displayed image in the first spectral band (Morley: column 9, lines 25-34); a collimator (Morley: column 8, lines 5-10) for receiving and projecting the displayed image (Morley: column 10, lines 11-17); and a beam mixer for combining the transmitted scene in the first spectral band with the displayed image (Morley: column 9, lines 45-64), and conveying the combined multispectral images to an output (Morley: column 10, lines 20-25), as claim 1.

Regarding claim 2, Morley discloses that the first spectral band is visible (Morley: column 6, lines 10-20), as in the claim.

Regarding claim 3, Morley discloses that the second spectral band is infrared (Morley: column 6, lines 10-20), as in the claim.

Regarding claim 4, Morley discloses that the display is an active matrix display (Morley: column 9, lines 20-25), as in the claim.

Regarding claim 5, Morley further discloses a viewing system coupled to the output (Morley: column 9, lines 60-65), as in the claim.

Regarding claim 6, Morley discloses that the representative output is an analog video signal (Morley: column 10, lines 18-20), as in the claim.

Regarding claim 7, Morley discloses that the representative output is a digital video signal (Morley: column 10, lines 20-22), as in claim.

Regarding claims 8-9, Morley discloses that the viewing system is a night vision device and camera (Morley: column 5, lines 20-25), as in the claims.

Regarding claims 10-12, Morley discloses having a data port (Morley: column 10, lines 22-25), as in the claims.

Regarding claims 13-14, Morley discloses that the first and second bands have a common aperture (Morley: column 8, lines 39-63), as in the claims.

Regarding claims 15-16, Morley discloses having an objective lens assembly (Morley: column 8, lines 5-10) and an image intensifier (Morley: column 9, lines 50-60), as in the claims.

Morley discloses a method for combining multispectral images of a scene, the method comprising: receiving an image of the scene in a first spectral range at a detector (Morley: column 6, lines 15-20); generating a video representation of the image (Morley: column 10, lines 15-20); transmitting the video representation to a display (Morley: column 9, lines 25-34); generating a visual representation of the image at the display (Morley: column 10, lines 20-25) relaying the visual representation of the image (Morley: column 9, lines 65-67); receiving the image of the scene in a second spectral range (Morley: column 6, lines 15-20); combining the relayed image with an image in the second spectral region (Morley: column 10, lines 1-10); transmitting the combined images to an output (Morley: column 9, lines 45-64); and displaying the combined multi-spectral images of the scene (Morley: column 10, lines 20-25), as claim 17.

Regarding claim 18, Morley discloses that the first spectral band is visible (Morley: column 6, lines 10-20), as in the claim.

Regarding claim 19, Morley discloses that the second spectral band is infrared (Morley: column 6, lines 10-20), as in the claim.

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Regarding claim 20, Morley discloses having an image intensifier (Morley: column 9, lines 50-60), as in the claim.

Regarding claim 21, Morley discloses having a data port (Morley: column 10, lines 22-25), as in the claim.

Regarding claim 22, Morley discloses superimposing data on the multispectral images (Morley: column 5, lines 60-67), as in the claim.

Regarding claim 23, Morley discloses that the relaying step comprises collimating the visual representation of the image (Morley: column 8, lines 5-10), as in the claims.

Regarding claim 24, Morley discloses the step of processing the video representation of the image (Morley: column 10, lines 15-25), as in the claim.

Morley discloses a method for combining multispectral images of a scene, the method comprising: receiving an infrared image of a scene at an infrared detector (Morley: column 6, lines 15-20); generating a representation of the infrared images (Morley: column 10, lines 15-20); transmitting the infrared image representation to a display (Morley: column 9, lines 25-34); collimating the displayed infrared image (Morley: column 10, lines 11-17); combining the collimated infrared image with an image of the scene in a second spectral region (Morley: column 10, lines 1-10); transmitting the combined images to an intensifier system operable to intensity images in the second spectral region (Morley: column 9, lines 45-64); and displaying the combined images of the scene (Morley: column 10, lines 20-25), as claim 25.

Regarding claim 26, Morley discloses that the second spectral band is visible (Morley: column 6, lines 10-20), as in the claim.

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Regarding claim 27, Regarding claims 8-9, Morley discloses that the viewing system are night vision goggles (Morley: column 5, lines 20-25), as in the claims.

Regarding claim 28, Morley discloses that the first and second bands have first and second apertures (Morley: column 8, lines 39-63), as in the claim.

Regarding claim 29, Morley further discloses that the visual representation of the infrared image is displayed at an external viewer (Morley: column 9, lines 60-65), as in the claim.

Regarding claim 6, Morley discloses that the representative output is an analog video signal (Morley: column 10, lines 18-20), as in the claim.

Regarding claim 7, Morley discloses that the representative output is a digital video signal (Morley: column 10, lines 20-22), as in claim.

Regarding claim 30, Morley discloses having a data port (Morley: column 10, lines 22-25), as in the claim.

Regarding claim 31, Morley discloses superimposing data on the multispectral images (Morley: column 5, lines 60-67), as in the claim.

Regarding claim 32, Morley discloses the step of processing the video representation of the image (Morley: column 10, lines 15-25), as in the claim.

Morley discloses a system for combining multispectral images of a scene, the system comprising: a viewing system for viewing the scene in a first spectral range (Morley: column 10-20), the viewing system having an objective lens and viewing optics (Morley: column 6, lines 55-67); a detector for viewing the scene in a second spectral range, the detector having an image output representative of the viewed scene (Morley: column 6, lines 15-20); a display for receiving and displaying the image output (Morley: column 10, lines 20-25); a collimator

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(Morley: column 8, lines 5-10) for receiving and projecting the displayed image (Morley: column 10, lines 11-17); and a beam mixer for receiving the viewed scene in the first spectral range and the displayed image and (Morley: column 9, lines 45-64), and conveying both images to the viewing system to construct the combined multi-spectral images of the scene (Morley: column 10, lines 20-25), as claim 33.

Regarding claim 34, Morley discloses having an image intensifier (Morley: column 9, lines 50-60), as in the claim.

Regarding claim 35, Morley discloses that the first spectral band is visible (Morley: column 6, lines 10-20), as in the claim.

Regarding claim 36, Morley discloses that the second spectral band is infrared (Morley: column 6, lines 10-20), as in the claim.

Regarding claim 37, Morley discloses that the display is an active matrix display (Morley: column 9, lines 20-25), as in the claim.

Regarding claim 38, Morley discloses that the viewing system is a night vision device and camera (Morley: column 5, lines 20-25), as in the claim.

Regarding claim 39, Morley discloses that the representative output is an analog video signal (Morley: column 10, lines 20-22), as in claim.

Regarding claim 40, Morley discloses that the representative output is a digital video signal (Morley: column 10, lines 20-22), as in claim.

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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Janeczko discloses an enhanced night vision device. Florence discloses an FLIR image with hybrid optical/electronic processor. Ford discloses an interferometric optical path difference scanner. Hanson discloses a head mounted video display and remote camera system. Watson discloses a portable luminescence sensor.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao
Primary Examiner
Art Unit 2613

ANDY RAO
PRIMARY EXAMINER

asr

May 11, 2004